

1 UNITED STATES DISTRICT COURT
2 WESTERN DISTRICT OF WASHINGTON

3 FEDERAL TRADE COMMISSION,

4 Plaintiff,

5 v.

6 AMAZON.COM, INC.,

7 Defendant.
8
9
10

Case No. 2:14-cv-01038-JCC

**DECLARATION OF JULIE BETH
MILLER**

11 I, Julie Beth Miller, declare pursuant to 28 U.S.C. § 1746, that I have personal knowledge of the
12 facts set forth below. If called as a witness, I could and would testify competently as follows:

13 1. I am employed by the Federal Trade Commission (“FTC”) as a lead data analyst
14 in the Bureau of Consumer Protection. I have worked with the FTC since April 2008. Between
15 April 2008 and October 2015, I was an economic research analyst with the Bureau of
16 Economics.

17 2. I have a Bachelor of Arts in Economics from the University of San Diego and a
18 Master of Arts in Economics from the University of Southern California.

19 3. Counsel for the FTC on this matter asked me to summarize certain data produced
20 by Amazon, Bates-numbered Amazon_00008935, 00008949, 00209634, 00361902-00361903,
21 00362122-00363568, 00385387-00385388, and 00387466-00387467. These files were in .txt,
22 .xls, or .pdf format.

23 4. I reviewed the data using Stata 14 MP (“Stata”). Stata is a data management and
24 statistical software package. I have been using Stata since April 2008, and I chose it to perform
25 my work on this matter because it can process the number and size of the files Amazon
26 produced.

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5. FTC counsel asked me to limit my calculations to apps listed in Amazon_00008935 (" ") or Amazon_00008949 (" ") with a " " other than " ". I refer to these apps in this declaration as "High-Risk Non-Casino apps." Unless otherwise specified, my calculations below only use data associated with High-Risk Non-Casino apps.

Injury and Relief Calculations

6. FTC counsel asked me to calculate Amazon's in-app charge revenue and refund totals for seven segments, identified below in Table 1.

Table 1: Revenue and Refund Segment Parameters

Segment	Parameters
1	\$20+ orders in High-Risk Non-Casino apps from the earliest date available in the data through March 25, 2012
2	\$19.99 and below orders in High-Risk Non-Casino apps from the earliest date available in the data through February 5, 2013
3	\$19.99 and below orders in High-Risk Non-Casino apps from February 6, 2013 through April 30, 2013 excluding Otter device
4	\$19.99 and below orders in High-Risk Non-Casino apps from May 1, 2013 through July 30, 2013 excluding Otter device
5	\$19.98 and below orders in High-Risk Non-Casino apps from July 31, 2013 through June 3, 2014 excluding Otter device
6	\$19.99 and below orders in High-Risk Non-Casino apps from February 6, 2013 through October 9, 2013 on Otter device only
7	\$.99 and below orders in High-Risk Non-Casino apps from October 10, 2013 to the latest date available in the data on Otter device only

7. To identify charges and refunds falling within the seven segments listed in Table 1, pursuant to FTC counsel's request, I used from Amazon_00362123 and Amazon_00362127 the fields " " to identify the date of the charge, " " or " " to identify the amount of the charge, and " " to identify the device type. I also used from Amazon_00361903 and Amazon_00362125 the fields " " (or, if " " was missing, " " from Amazon_00362123 and

Amazon_00362127) to identify the date of the refund, and “[REDACTED]” (or, if “[REDACTED]” was missing, “[REDACTED]” from Amazon_00362123 and Amazon_00362127) to identify the amount of the refund.

8. I calculated the in-app charge revenue and refund totals for the seven segments listed in Table 1. **Table 2** contains the results for each segment.

Table 2: Revenue and Refund Segments

Segment	Revenue	Refunds
1	\$ [REDACTED]	\$ [REDACTED]
2	\$ [REDACTED]	\$ [REDACTED]
3	\$ [REDACTED]	\$ [REDACTED]
4	\$ [REDACTED]	\$ [REDACTED]
5	\$ [REDACTED]	\$ [REDACTED]
6	\$ [REDACTED]	\$ [REDACTED]
7	\$ [REDACTED]	\$ [REDACTED]

9. FTC counsel asked me to calculate the total revenue and refunds across the segments identified in Table 2, omitting any charges for which Amazon produced data showing a non-null password challenge type (fields “[REDACTED]” or “[REDACTED]”) value for any device other than “OTTER”. I identified \$ [REDACTED] in revenue and \$ [REDACTED] in refunds that matched these criteria. I then deducted those amounts from the totals listed in Table 2. **Table 3** contains the results.

Table 3: Total Revenue and Refund

Revenue	Refunds
\$ [REDACTED]	\$ [REDACTED]

10. FTC counsel asked me to identify, from available data between December 21, 2013 and June 3, 2014, the number of “failed” and “successful” password entry attempts for three password challenge types: “[REDACTED]” (or “[REDACTED]”), “[REDACTED]” (or “[REDACTED]”), and “[REDACTED]” (or “[REDACTED]”). Counsel asked me not to count records with more than one password challenge type (fields “[REDACTED]”, “[REDACTED]”, or “[REDACTED]”).

11. FTC counsel asked me to identify as “failed” attempts any transactions with a “[REDACTED]” appearing in the failed metric events data Amazon produced (Amazon_00362317-00362568) for which there was data indicating “[REDACTED].” Counsel asked me to identify as “successful” attempts any transactions with an “[REDACTED]” appearing in the sales data Amazon produced (Amazon_00362123 and Amazon_00362127). Each “[REDACTED]” counted as one successful attempt. If a particular “[REDACTED]” had multiple instances of a particular password challenge type, it counted only as one attempt.

12. I calculated the total number of failed attempts and successful attempts using the data Amazon provided and according to FTC counsel’s instructions. **Table 4** contains the results, as well as the total number of attempts.

Table 4: Number of Failed and Successful Attempts

Password Challenge Type	Failed	Successful	TOTAL
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
TOTAL	[REDACTED]	[REDACTED]	[REDACTED]

13. FTC counsel asked me to calculate an “Unauthorized Charge Rate” (the “Rate”) defined as the total number of failed attempts ([REDACTED]) over the total number of all attempts ([REDACTED]) in Table 4. I calculated the Rate: [REDACTED] = [REDACTED] %.

14. FTC counsel asked me to calculate as “Injury” the Rate applied to the total revenue identified in Table 3 (\$[REDACTED]). Injury equals \$[REDACTED].

15. FTC counsel asked me to subtract the total refunds identified in Table 3 (\$[REDACTED]) from the Injury figure to get a “Relief” figure. Relief equals \$[REDACTED].

“Child” or “Accidental” Charges

16. FTC counsel asked me to identify the total number of charges through June 3, 2014 (and, for the Otter device, \$.99 and below charges through the end of the data) that Amazon marked with the following “[REDACTED]” or “[REDACTED]” values in the customer service data Amazon produced (Amazon_00361903 and 00362125):

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- 1 • "[REDACTED]"
- 2 • "[REDACTED]"
- 3 • "[REDACTED]"
- 4 • "[REDACTED]"
- 5 • "[REDACTED]"
- 6 • "[REDACTED]"
- 7 • "[REDACTED]"
- 8 • "[REDACTED]"
- 9 • "[REDACTED]"

10 Counsel also asked me to include any charges with both [REDACTED] equal to "[REDACTED]
11 [REDACTED]" and [REDACTED] equal to "[REDACTED]." Counsel
12 asked me to identify the total number of consumers billed for these charges as well: [REDACTED]
13 customers were billed for these charges. My results are in **Table 5** below.

Table 6: Number of Charges with Applicable [REDACTED] Values or Refund Reason

Table 6: Number of Charges with Applicable [REDACTED] Values or Reason	
[REDACTED]	Charges
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
TOTAL	[REDACTED]

19. FTC counsel asked me to identify the total number of consumers billed for the charges identified in Table 6 by adding the number of consumers billed for the charges identified in Table 5 to the number of other consumers billed for the charges identified in paragraph 18. I did, and the total number of consumers billed for charges associated with the [REDACTED] values listed in Table 6 *or* a Refund Reason of “[REDACTED]” is [REDACTED].

Refund Rates by Refund Month

20. FTC counsel asked me to calculate the monthly revenue, refunds, and refund rate for in-app charges in High-Risk Non-Casino apps through June 2014. Counsel asked me, for purposes of comparing these rates with certain aggregate data provided by Amazon (Bates-numbered Amazon_00209634, attached hereto as **Exhibit A**), to group revenue by “██████████” and refunds by “██████████” (that is, the month the charge

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was refunded as opposed to the month the refunded charge was billed). I calculated the revenue and refunds for each month. For each month, I then divided the amount refunded by the amount of revenue to calculate the refund rate. My results are in **Table 7** below.

Table 7: Revenue by Order Date and Refunds by Refund Date

Month	Revenue	Refunds	Refund Rate
Nov-2011			
Dec-2011			
Jan-2012			
Feb-2012			
Mar-2012			
Apr-2012			
May-2012			
Jun-2012			
Jul-2012			
Aug-2012			
Sep-2012			
Oct-2012			
Nov-2012			
Dec-2012			
Jan-2013			
Feb-2013			
Mar-2013			
Apr-2013			
May-2013			
Jun-2013			
Jul-2013			

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1	Aug-2013			
2	Sep-2013			
3	Oct-2013			
4	Nov-2013			
5	Dec-2013			
6	Jan-2014			
7	Feb-2014			
8	Mar-2014			
9	Apr-2014			
10	May-2014			
11	June 2014			
12	TOTAL			

13 21. FTC counsel asked me to calculate the monthly refund rate through June 2014 for
14 in-app charges included in the aggregate data Amazon produced, Ex. A, *excluding* the High-Risk
15 Non-Casino apps. I calculated the refund rate by dividing the “ ” each month by the
16 “ ” for that month. My results follow in **Table 8** below.

17 **Table 8: Revenue and Refunds Excluding High-Risk Non-Casino Apps**

18	Month	Revenue	Refunds	Refund Rate
19	Nov-2011			
20	Dec-2011			
21	Jan-2012			
22	Feb-2012			
23	Mar-2012			
24	Apr-2012			
25	May-2012			
26	Jun-2012			

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Jul-2012			
Aug-2012			
Sep-2012			
Oct-2012			
Nov-2012			
Dec-2012			
Jan-2013			
Feb-2013			
Mar-2013			
Apr-2013			
May-2013			
Jun-2013			
Jul-2013			
Aug-2013			
Sep-2013			
Oct-2013			
Nov-2013			
Dec-2013			
Jan-2014			
Feb-2014			
Mar-2014			
Apr-2014			
May-2014			
June 2014			
TOTAL			

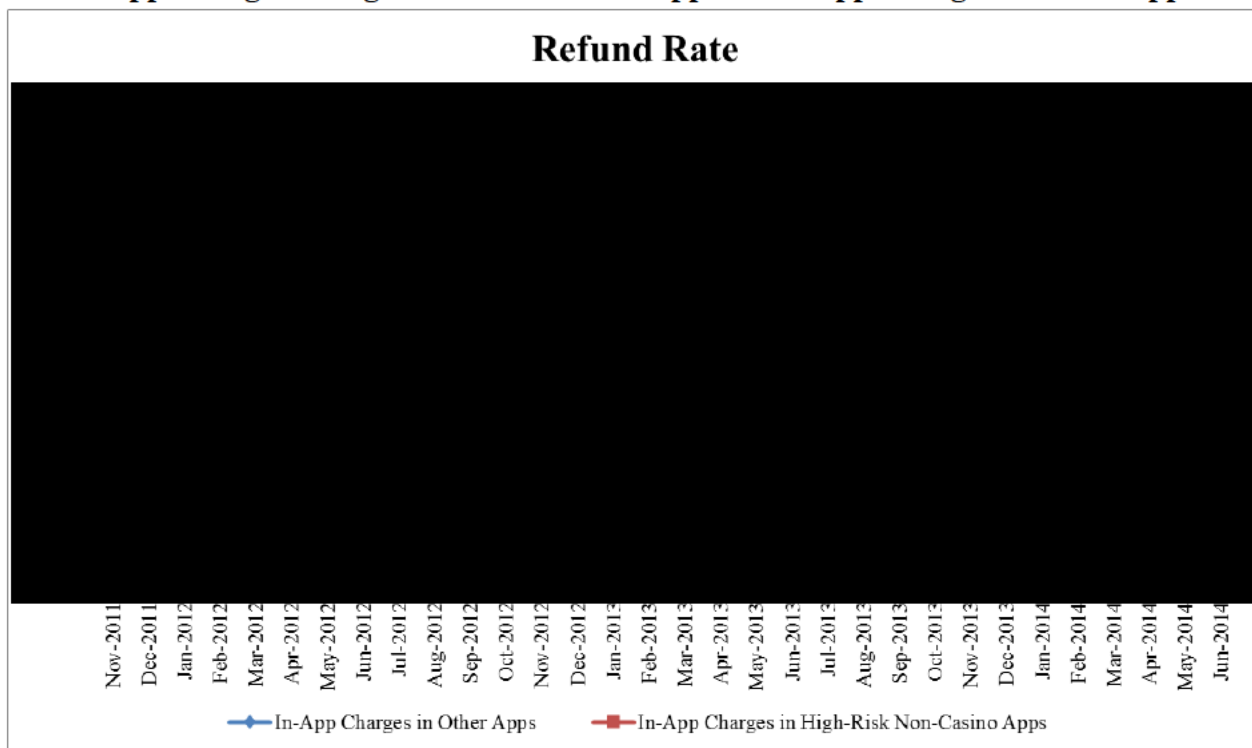
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22. Counsel asked me to plot the monthly refund rate for in-app charges from High-Risk Non-Casino apps against the monthly refund rates for Amazon's aggregate in-app charge data, Ex. A, *excluding* the High-Risk Non-Casino apps. The results are in **Figure 1** below.

Figure 1: Refund Rate:

In-App Charges in High-Risk Non-Casino Apps vs. In-App Charges in Other Apps



Refund Rates by Order Month

23. FTC counsel also asked me to calculate the monthly revenue, refunds, and refund rate for in-app charges through June 2014 using “[REDACTED]” (that is, grouping refunds by the month the refunded charge was billed as opposed to the month the charge was refunded). I calculated the revenue and refunds for each month. For each month, I then divided the amount refunded by the amount of revenue to calculate the refund rate. My results are in **Table 9** below.

Table 9: Revenue and Refunds by ORDER DATETIME

Month	Revenue	Refunds	Refund Rate
Nov-2011			
Dec-2011			
Jan-2012			
Feb-2012			
Mar-2012			
Apr-2012			
May-2012			
Jun-2012			
Jul-2012			
Aug-2012			
Sep-2012			
Oct-2012			
Nov-2012			
Dec-2012			
Jan-2013			
Feb-2013			
Mar-2013			
Apr-2013			
May-2013			
Jun-2013			
Jul-2013			
Aug-2013			
Sep-2013			
Oct-2013			

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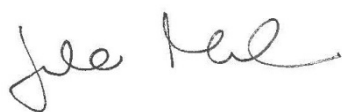
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Nov-2013	██████████	██████████	████
Dec-2013	██████████	██████████	████
Jan-2014	██████████	██████████	████
Feb-2014	██████████	██████████	████
Mar-2014	██████████	██████████	████
Apr-2014	██████████	██████████	████
May-2014	██████████	██████████	████
June 2014	██████████	██████████	████
TOTAL	██████████	██████████	████

24. FTC counsel asked me to calculate the average refund rate for in-app charges within High-Risk Non-Casino apps in 2012, 2013, and 2014 using the data in Table 9 above. I calculated these refund rates by dividing the amount refunded for the year by the amount of revenue for that year to calculate the refund rate. In 2012, the rate was ████%. In 2013, it was ████%. In 2014, it was ████%.

I declare under penalty of perjury that the foregoing is true and correct.

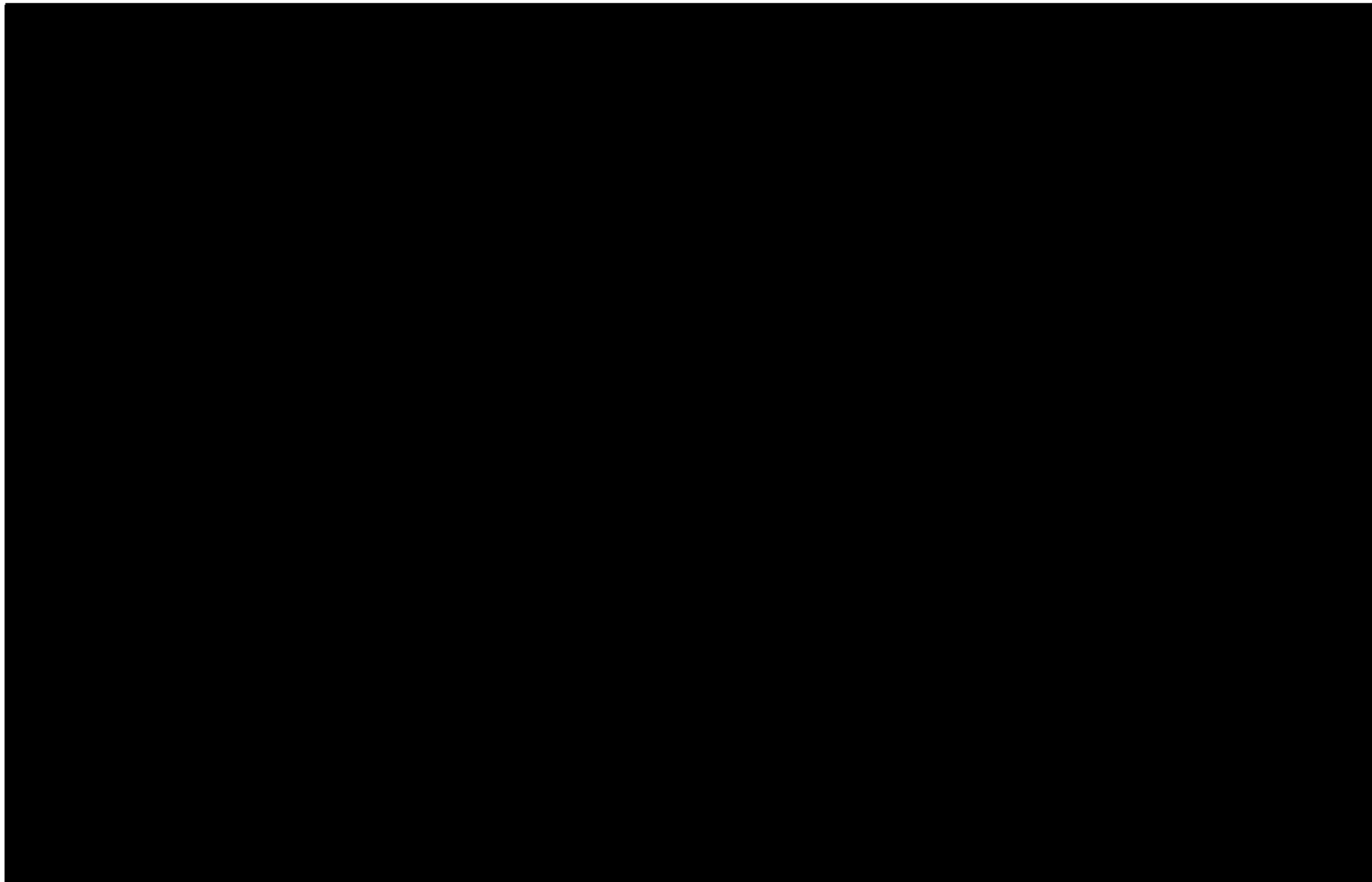
Executed this 2nd day of February 2016.



JULIE BETH MILLER

EXHIBIT

A



CONFIDENTIAL



